

## NOTES ON SOME NORTH AMERICAN SPECIES OF RHIZOPHAGUS (COL. NITID.).

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Going over a few of our North American species of *Rhizophagus* at the request of Mr. A. Mécignon of Orleans, France, the following, mostly synonymical, notes were made.

Two new North American species are described by Mécignon which are unknown to me and the characters used in the new table given below are taken from the descriptions, those for *R. procerus* were kindly supplied by Colonel Casey.

### TABLE OF THE NORTH AMERICAN SPECIES OF *Rhizophagus*.

1. Middle tibiæ at sides with three long spines at about apical half. . . . . 2.  
Middle tibiæ without or with very small spines. . . . . 3.
2. Front tibiæ with a rather long, acute spine above the apical tooth.  
sayi n. n.
3. Third joint of antennæ as long as the following three combined.  
*parallelocollis* Gyll.
4. Third joint of antennæ shorter than the following three combined. . . . . 4.
4. Second elytral interval dilated and punctate at base. . . . . *grouvellei* Méc.  
Second elytral interval not dilated nor punctate at base<sup>1</sup>. . . . . 5.
- <sup>1</sup> A few punctures are seen occasionally in some species but the interval is not dilated near base.
5. Antennæ apparently ten-pointed, the eleventh hidden in the tenth, the tenth truncate or subtruncate at apex; color brown, punctuation on thorax and elytra coarse. . . . . *fenyessi* Méc., *brunneus* Horn.  
Antennæ distinctly eleven-jointed. . . . . 6.
6. Prothorax elongate, as long or longer than wide. . . . . 7.  
Prothorax short, wider than long. . . . . 9.
7. Elytral intervals convex, striæ deeply impressed; prothorax exactly quadrate . . . . . *procerus* Casey.  
Elytral intervals flat . . . . . 8.
8. Abdomen and upper surface alutaceous, elytral striæ more or less distinctly impressed; color generally piceous or brown. . . . . *sculpturatus* Mann.  
Abdomen and upper surface shining, elytral striæ not impressed, except the sutural or first and sometimes the second stria more or less distinctly; color piceous, elytra with narrow basal space and generally the apex reddish . . . . . *dispar* Gyll.

9. Elytral epipleuræ distinctly punctured at base; prosternum and side pieces coarsely and moderately densely punctate.....*approximatus* Lec.  
 Elytral epipleura not punctured at base; prosternum and side pieces sparsely punctured .....10.
10. Elytra piceous, unicolored; form rather convex.....*remotus* Lec.  
 Elytra piceous with two oblique reddish spots; form slightly depressed.  
*minutus* Mann.

**Rhizophagus sayi n. n.**

*Rhizophagus bipunctatus* Say.

Journ. Acad. Nat. Sciences Phil., Vol. III, p. 324.

The specific name is used in this genus by Herbst for a European species.

This species and *cylindricus* are the only ones in our fauna having the middle tibiæ armed with three rather long spines.

**Rhizophagus parallelocollis Gyll.**

Ins. svec., Vol. IV, p. 638.

*Rhizophagus robustus* Schaef.

Journ. N. Y. Ent. Soc., XIX, p. 118.

Mr. A. Mécignon suggested in a letter to me the possible synonymy of the above two species and kindly sent me this and other European species of *Rhizophagus*. Comparing a specimen of *R. parallelocollis* with my *R. robustus*, his surmise proved to be correct.

**Rhizophagus grouvellei Méc.**

Bull. Soc. ent. France, 1913, p. 91.

A recently described species, unknown to me. However, it will be readily known from our other North American species in having the second elytral interval dilated and punctate at base, which puts it with the European *R. depressus* Fab. in the subgenus *Eurhizophagus*.

**Rhizophagus fenyesi Méc.**

Bull. Soc. ent. France, 1913, p. 91.

This species, unknown to me, was recently described. From the description I was unable to find a good character to separate it from *R. brunneus*, with which it agrees in the apparently ten-jointed antennæ, coarse punctuation, etc.

**Rhizophagus dispar Payk.**

Faun. svec., III, 1800, p. 328.

*Rhizophagus dimidiatus* Mann.

Bull. Mosc., 1843, p. 300.

Among the European species of *Rhizophagus* sent me by Mr. A. Mécignon was a specimen of *R. dispar* which looked very familiar and proved to be the same as our *R. dimidiatus*.

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### MISCELLANEOUS NOTES.

**Cicindela longilabris Say.**—Typical specimens of this species have been taken by John Woodgate in the Jemez Mountains, New Mexico, at an altitude of 7,500–8,000 ft., distant ten miles from Jemez Springs, in June of this year. Of the seven specimens captured five are identical with the form familiar to us as found on our northeastern boundary. Two are immaculate, a little less metallic above, surface of elytra a little smoother, and of a darker brown color, nearly black. The capture is interesting as it places the type form several degrees farther south than it appears to have been reported. Jemez Springs is in latitude  $30^{\circ} 45'$ .—EDW. D. HARRIS.

**Coscinoptera dominicana.**—The adults of this species are not uncommon on a variety of trees in May, June and July. The cocoons have been found under stones and logs in the nests of the ant, *Formica schaufussi*, and adults have been bred from cocoons found at Newfoundland, N. J., April 27, 1907, beetle hatched about May 18, and Roselle Park, N. J., April 13, 1913, beetle hatched about May 15.—WM. T. DAVIS.

**Chlœnius leucoscelis.**—This species has not been abundant near New York. Most of the specimens in local collections have been taken under stones by the Croton River by Mr. Wm. T. Davis, or near the same locality by Mr. C. L. Brownell; Mr. Chas. Schaeffer has also found it at Suffern. Mr. Davis collecting on the banks of the Potomac near the Great Falls, Va., found that a single individual which he pursued stayed under water nearly a minute.—C. W. LENG.

**Lophoglossus.**—The species of this genus prefer very wet places. Mr. Brownell dug a number of specimens out of a water-soaked log near Westwood, N. J., and Mr. E. A. Bischoff has found them clinging to the under side of logs in water, like water beetles.—C. W. LENG.